



mapleleaf

Quadrula quadrula

Kingdom: Animalia
Division/Phylum: Mollusca
Class: Bivalvia

Features

The mapleleaf mussel has a thick shell with well-developed teeth. It is square in outline. The anterior end of the shell is rounded while the posterior is squared. Two rows of wart-like bumps on the outer shell are separated by a shallow depression. The adult shell is brown, while the shell of a young individual is green or yellow. The inside of the shell is pearly white. The mapleleaf grows to four inches long.

Natural History

The mapleleaf lives in rivers, reservoirs, and shallow lakes with a mud, sand, or gravel bottom. Its distribution in Iowa is not well documented.

Freshwater mussels have an elaborate reproductive system. During spawning, males release sperm into the water. The sperm are drawn inside the female's shell, where they fertilize eggs in her body. The fertilized eggs develop into larvae (glochidia) and are stored for a time in the female's gills. When the glochidia mature, the female generally expels them into the water where they must attach as parasites to the gills or fins of fish. Larvae remain on the host fish for a period of weeks or months. Young mussels then

detach from their host and drop to the bottom of the body of water. The only known host for this mussel is the flathead catfish. Mussels are filter-feeders, bringing in water and the organic matter it contains through the incurrent siphon, filtering the particles out, then sending the rest of the water away from the body through the excurrent siphon. Particles filtered include plankton and detritus. Mature mussels spend most of their lives, which range from 10 to 100 years, partially or wholly buried in the bottom substrate.

Habitats

interior rivers and streams; constructed lakes, ponds, and reservoirs; Mississippi River

Iowa Status

common; native

Iowa Range

northeastern two-thirds of Iowa

Bibliography

Iowa Department of Natural Resources. 2001.
Biodiversity of Iowa: Aquatic Habitats CD-ROM.